

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-2. (Canceled.)

3. (Currently Amended) A network system for a network having plural nodes connected, wherein a node belonging to said network comprises:

a learning frame management unit which refers to a ~~MAC SA~~ source media access control address (MAC SA) table cache to determine whether a learning frame transmission request ~~corresponding to said~~ of a MAC SA has been made,

a MAC forwarding table memory which stores an output port for a destination MAC address and tag ~~operations~~ destination MAC address assigned by the learning frame management unit, and

the MAC SA table cache which stores a the source MAC address which has made a learning frame transmission request.

4. (Previously Presented) The network system as set forth in claim 3, wherein said nodes comprise:

an aging request acceptance unit which ages said MAC SA table cache, and

a transmission request unit which makes a learning frame transmission request to a CPU.

5. (Currently Amended) The network system as set forth in claim 4, wherein said nodes have a learning management computer-readable medium encoded with a computer program which conducts a learning frame process.

6. (Currently Amended) A network system for a network having plural nodes connected, wherein a node belonging to said network comprises:

a learning management computer-readable medium encoded with a computer program which conducts a learning frame process; and

a software table,

wherein a network control computer-readable medium encoded with a computer

program uses a set of memory duplicate information to perform an entry search in the software table.

7. (Currently Amended) The network system as set forth in claim 3, wherein said node has an equipment control computer-readable medium encoded with a computer program which conducts a variety of configurations.

8. (Previously Presented) The network system as set forth in claim 3, wherein said node comprises a frame type judgment unit which judges an input frame.

9. (Previously Presented) The network system as set forth in claim 3, wherein a node belonging to said network comprises:

- an aging control unit which ages an entry to be aged, and
- an aging management table which stores an entry to be aged.

10. (Canceled).

11. (Previously Presented) The network system as set forth in claim 3, wherein said node comprises a broadcast table memory which stores an output destination port at a time of broadcasting to a tag.

12. (Previously Presented) The network system as set forth in claim 3, wherein said node comprises a tag forwarding table memory which stores an output port for a forwarding tag.

13. (Previously Presented) The network system as set forth in claim 3, wherein said node comprises:

- a table;
- an aging circuit; and
- a forwarding table having a table read/write circuit.

14. (Previously Presented) The network system as set forth in claim 3, wherein said node comprises a TAG address management table which stores an address of a forwarding tag on

a MAC forwarding table memory.

15. (Currently Amended) A network system for a network having plural nodes connected, wherein a node belonging to said network applies a learning function of Ethernet to an asymmetric flow by sending a learning frame through an opposite path to a path where a main signal frame flows ~~sends an asymmetrical main signal frame to an Ethernet while maintaining a learning information.~~

16-17. (Canceled)

18. (Currently Amended) A learning bridge node of a network having plural nodes connected, comprising:

a learning frame management unit which refers to a ~~MAC SA~~ source media access control address (MAC SA) table cache to determine whether a learning frame transmission request ~~corresponding to said~~ of a MAC SA has been made,

a MAC forwarding table memory which stores an output port for a destination MAC address and tag operations destination MAC address assigned by the learning frame management unit, and

the MAC SA table cache which stores a the source MAC address which has made a learning frame transmission request.

19. (Original) The learning bridge node as set forth in claim 18, comprising:
an aging request acceptance unit which ages a MAC SA table cache, and
a transmission request unit which makes a learning frame transmission request to a CPU.

20. (Currently Amended) The learning bridge node as set forth in claim 19, comprising a learning management computer-readable medium encoded with a computer program which performs learning frame processing.

21. (Currently Amended) A learning bridge node for a network having plural nodes connected, comprising:

a learning management computer-readable medium encoded with a computer program which performs learning frame processing; and
a software table,
wherein a network control computer-readable medium encoded with a computer program uses a set of memory duplicate information to perform an entry search in the software table.

22. (Currently Amended) The learning bridge node as set forth in claim 18, comprising an equipment control computer-readable medium encoded with a computer program which makes a variety of configurations.
23. (Original) The learning bridge node as set forth in claim 18, comprising a frame type judgment unit which judges an input frame.
24. (Original) The learning bridge node as set forth in claim 18, comprising:
an aging control unit which ages an entry to be aged, and
an aging management table which stores an entry to be aged.
25. (Canceled.)
26. (Previously Presented) The learning bridge node as set forth in claim 18, comprising a broadcast table memory which stores an output destination port at a time of broadcasting to a tag.
27. (Original) The learning bridge node as set forth in claim 18, comprising a tag forwarding table memory which stores an output port for a forwarding tag.
28. (Previously Presented) The learning bridge node as set forth in claim 18, comprising:
a forwarding table having a table;
an aging circuit; and
a table read/write circuit.

29. (Original) The learning bridge node as set forth in claim 18, comprising a TAG address management table which stores an address of a forwarding tag on a MAC forwarding table memory.

30. (Currently Amended) A learning bridge node for a network having plural nodes connected, wherein a learning function of Ethernet is applied to an asymmetric flow by sending a learning frame through an opposite path to a path where a main signal frame flows ~~the network sends an asymmetrical main signal frame to an Ethernet while maintaining a learning information.~~

31-32. (Canceled.)

33. (Currently Amended) A learning method of a network having plural nodes connected, wherein a node belonging to said network:

refers to a ~~MAC SA~~ source media access control address (MAC SA) table cache to judge whether a learning frame transmission request ~~corresponding to said~~ of a MAC SA has been made, and

stores ~~a source MAC address (MAC SA)~~ the MAC SA which has made a learning frame transmission request in said MAC SA table cache, and

stores an output port for a destination MAC address and a tag ~~operations~~ destination MAC address assigned by the learning frame management unit in a MAC forwarding table memory.

34. (Original) The learning method as set forth in claim 33, wherein said node performs aging of said MAC SA table cache and makes a learning frame transmission request to a CPU.

35. (Currently Amended) The learning method as set forth in claim 34, wherein said node is provided with a learning management computer-readable medium encoded with a computer program which performs learning frame processing.

36. (Currently Amended) A learning method for a network having plural nodes

connected, wherein a node belonging to said network comprises:

a learning management computer-readable medium encoded with a computer
program which performs learning frame processing; and

a software table,

wherein a network control computer-readable medium encoded with a computer
program uses a set of memory duplicate information to perform an entry search in the
software table.

37. (Currently Amended) The learning method as set forth in claim 33, wherein said
node comprises an equipment control computer-readable medium encoded with a computer
program which makes a variety of configuration.

38. (Original) The learning method as set forth in claim 33, wherein said node
discriminates an input frame.

39. (Original) The learning method as set forth in claim 33, wherein a node belonging to
said network performs aging of an entry to be aged and stores an entry to be aged in an
aging management table.

40. (Canceled).

41. (Previously Presented) The learning method as set forth in claim 33, wherein said
node stores an output destination port at a time of broadcasting to a tag in a broadcast table
memory.

42. (Original) The learning method as set forth in claim 33, wherein said node stores an
output port for a forwarding tag in a tag forwarding table memory.

43. (Previously Presented) The learning method as set forth in claim 33, wherein said
node comprises a forwarding table having a table;
an aging circuit; and
a table read/write circuit.

44. (Original) The learning method as set forth in claim 33, wherein said node stores an address of a forwarding tag on a MAC forwarding table memory in a TAG address management table.

45. (Currently Amended) A learning method for a network having plural nodes connected, wherein a node belonging to said network applies a learning function of Ethernet to an asymmetric flow by sending a learning frame through an opposite path to a path where a main signal frame flows ~~sends an asymmetrical main signal frame to an Ethernet while maintaining a learning information.~~